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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/700,140	02/05/2001	Tetsujiro Kondo	450101-02537	1959

20999 7590 09/21/2005

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EXAMINER

WHIPKEY, JASON T

ART UNIT	PAPER NUMBER
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2612

DATE MAILED: 09/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed June 22, 2005, have been fully considered but they are not persuasive.

Applicant argues on page 11 of the remarks that Martin fails to disclose the limitation "converting it into high quality picture image" found in the independent claims. Applicant argues that in Martin, "it is clear that the resolution of the interpolated pixels ... is the same as the resolution of original pixels."

However, Martin teaches that, "By incorporating the image transform processor 24 of the present invention with a CMOS APS array or CID array, increased image resolution is provided" (see column 8, lines 63-65). Since the instant application's claims are not specific about how a "high quality picture image" is produced and Martin discloses an "increased image resolution", the combination of Driscoll, Martin, and, where applicable, Adams anticipates the claims.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1, 4, 5, and 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Driscoll (U.S. Patent No. 6,593,969) in view of Martin (U.S. Patent No. 6,243,131).

Regarding **claims 1, 4, and 14**, Driscoll discloses a panoramic camera and its associated processing device. The system captures a distorted annular image, as shown in Figure 3A (a “distorted picture image”), into the corrected image shown in Figure 3B.

The system is comprised of the components shown in Figure 13A, including panoramic camera system 1205 (“image pick-up means”), a network (“communication means”), and computers (“a picture image display unit”) connected to the network (column 10, line 64, through column 11, line 3). Digitized annular images captured by panoramic camera system 1205 are stored in annular video storage system 1230 (“memory means”) (column 10, lines 42-43).

A computer user makes a request using the GUI shown in Figure 13B, wherein a desired viewing area is requested by moving locator window 1315 (column 11, lines 12-15). The requested viewing area is transmitted by the network to user input processing routines 1250 and

Art Unit: 2612

1253 (“selector means”) (column 11, lines 19-20). User input processing routines 1250 and 1253 instruct annular to video conversion units 1240 and 1243 (“picture image conversion means”) to produce and output corrected images of the selected area to the computer (column 11, lines 19-24).

Driscoll is silent with regard to converting the distorted image into a high-quality image.

Martin discloses a camera with a fisheye lens used for surveillance. Image transform processor 24 in Figure 2 corrects image distortion and increases the resolution of the image (column 8, lines 19-24 and 63-65).

An advantage of increasing a resolution of an outputted image is that the image may be displayed on a high-definition monitor without external upconversion. For this reason, it would have been obvious at the time of invention to have Driscoll’s camera increase image quality prior to outputting the image signal.

Claim 5 may be treated like claim 1. Additionally, Driscoll teaches that image processing is performed on computer system 1200 (column 10, line 34). It is inherent that computers perform processing using instructions stored in some form.

Claims 12 and 13 may be treated like claim 1. Additionally, it is inherent that a computer connected to a network has some sort of hardware interface to that network (“second communication means”).

5. Claims 2, 6-8, 10, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Driscoll in view of Martin and further in view of Adams (U.S. Patent No. 5,652,621).

Claim 2 may be treated like claim 1. However, Driscoll is silent with regard to selecting distorted portions of the image for correction through classification adaptive processing.

Adams discloses a digital camera system that classifies pixels based on their properties and selects a type of processing to be performed on each pixel based on that classification (column 4, lines 37-44). An advantage of performing processing in this manner is that unnecessary processing is avoided. For this reason, it would have been obvious at the time of invention to have Driscoll's system classify pixels to determine whether distortion-corrective processing is necessary prior to performing such processing.

Regarding **claims 6, 10, and 11**, Driscoll discloses panoramic camera and its associated processing device. The system captures a distorted annular image, as shown in Figure 3A ("picture data having distortion"), into the corrected image shown in Figure 3B.

The system is comprised of the components shown in Figure 13A, including a network and computers connected to the network (column 10, line 64, through column 11, line 3). Digitized annular images captured by panoramic camera system 1205 are stored in annular video storage system 1230 (column 10, lines 42-43).

A computer user makes a request using the GUI shown in Figure 13B, wherein a desired viewing area is requested by moving locator window 1315 (column 11, lines 12-15). The requested viewing area ("predetermined unit[s] of picture data" of a "feature") is transmitted by the network to user input processing routines 1250 and 1253 ("extraction means") (column 11, lines 19-20). User input processing routines 1250 and 1253 instruct annular to video conversion units 1240 and 1243 ("picture image conversion means") to produce and output corrected images of the selected area to the computer (column 11, lines 19-24).

Driscoll is silent with regard to selecting distorted portions of the image for correction through classification of pixels.

Adams discloses a digital camera system that classifies pixels based on their properties and selects a type of processing to be performed on each pixel based on that classification (column 4, lines 37-44). An advantage of performing processing in this manner is that unnecessary processing is avoided. For this reason, it would have been obvious at the time of invention to have Driscoll's system classify pixels to determine whether distortion-corrective processing is necessary prior to performing such processing.

Regarding **claim 7**, Driscoll's system includes panoramic camera system 1205 ("image pick-up means").

Regarding **claim 8**, Adams discloses a digital camera system that classifies pixels based on their properties and selects a type of processing to be performed on each pixel based on that classification (column 4, lines 37-44).

6. Claims 3 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Driscoll in view of Martin and Adams and further in view of Kondo (U.S. Patent No. 5,835,138).

Claims 3 and 9 may be treated like claims 2 and 6, respectively. However, Adams is silent with regard to performing adaptive dynamic range coding.

Kondo discloses an image signal processing apparatus that performs ADRC encoding on captured image data using ADRC encoder 8 (column 5, lines 28-30). An advantage of performing ADRC encoding on pixels prior to classifying them for processing is that the number of bits necessary to represent the image data is reduced, thus reducing the amount of processing

Art Unit: 2612

necessary to manipulate the data. For this reason, it would have been obvious at the time of invention to have Adams's system perform ADRC coding on the image data prior to performing any processing.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason Whipkey, whose telephone number is (571) 272-7321. The examiner can normally be reached Monday through Friday from 9:00 A.M. to 5:30 P.M. eastern daylight time.

Art Unit: 2612

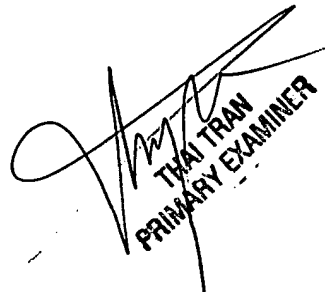
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thai Tran, can be reached at (571) 272-7382. The fax phone number for the organization where this application is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JTW

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September 12, 2005


THAI TRAN
PRIMARY EXAMINER